Item D:

1. Will continue to compliance with all applicable laws and regulations, conform to top-level safety standards, and provide adequate safety.

There are no applicable laws, regulations and top-level standards affected by these additional standards. These new standards enhance existing commitments through consideration of the effects required by top-level standards.

Integrated Safety Management Process Implementation

The new standards identified in this ABCN establish controls for assessing structural fill for Important to Safety (ITS) structures. The performance of soils supporting ITS facilities has been identified in the ISM process to be ITS. In order to assess the site soil conditions, a geotechnical investigation was conducted and the results published in the Geotechnical Investigation Report, by Shannon and Wilson, Inc. H-1616-51 (WTSC99-1036-42-17). This report contains requirements for compaction of soils and specifies testing standards contained within these new standards.

The compaction of structural fill requires laboratory testing to determine placement conditions and field tests to verify that proper conditions existed and confirm that compaction has been achieved. These standards and those referenced within them provide industry-accepted methods for performing laboratory and field tests. The methods and procedures contained within these standards enable testing agencies to obtain consistent results under controlled conditions.

Regulatory Basis Compliance

These standards address the following Regulatory Bases; 4.1.6.2, “Established Techniques and Procedures;” 4.2.2.1, “Proven Engineering Practices;” 4.2.2.3, “Safety System Design and Qualification;” and 4.2.5.1, “Inherent/Passive Safety Characteristics-Safety Margin Enhancement.”

The use of established techniques and procedures is met through the use of ASTM standards that have been developed with theoretical and practical experience. These standards represent proven techniques for establishment of soil properties and verification of compaction. This position was reinforced through the ISM process that found other established procedures using standards referenced within these standards.

The standards selected are proven engineering practices for evaluation of soil properties and assessment of soil compaction. These standards have been developed for the purposes for which they are being used. The selected standards were also found in technical specifications used at other DOE and commercial facilities. The use of these standards for their particular application does not represent a new approach to design or verification that would require additional qualification.

Design of safety systems to perform during events and under load combinations specified in SRD Criterion 4.1-3 and 4.1-4, is demonstrated through the qualification tests performed in accordance with the standards being added by this ABCN. The soil qualified by the tests associated with the new standards demonstrate that structural loads applied will not cause unacceptable performance of the ITS structures. Use of these standards represents a qualification of the insitu and backfill soils loaded by the ITS structures.

The soil supporting the facility provides an inherently safe and inherently passive system for the ITS functions of the facilities. This is made possible through the testing methods contained within these new standards. These tests will confirm that the load resisting capabilities of the soils can be achieved and that deflections will not become excessive and threaten stability of the structures.

Safety Criterion Compliance

Use of these codes will ensure that soil supporting ITS structures is constructed, tested and inspected to quality standards commensurate with the ITS functions the soil provides. These standards assure the

quality of insitu soil and backfill soil for the required safety functions. Records of the placement and compaction of the soil will be available through compliance with the requirements of these new standards.

Existing safety standards do not address the requirements contained within these standards and top-level safety standards are not affected by these additions. Use of these standards will assure that top-level safety requirements contained in the SRD will be met by the soil supporting the ITS structures.

2. Will continue to conform to the original submittal requirements associated with the authorization basis document(s) affected by the revision.

The fundamental aspects of the design requirements are not affected by these new standards. The requirements addressed in these standards are not contained within associated authorization basis documents. This change has no affect on the original, authorization basis submittal requirements.

3. Will not result in inconsistencies with other commitments and descriptions contained in the authorization basis or an authorization agreement.

A review of the existing authorization basis and authorization agreements found that the requirements for compaction of the soils used as structural backfill are not discussed. The addition of these standards to the authorization basis is an increase in commitments. There are no inconsistencies with authorization basis documents or authorization agreements.

Item G:

The SRD continues to identify a set of standards that, when implemented, will provide adequate safety, comply with all applicable laws and regulations, and conform to top-level safety standards.

Certification that the revised SRD identifies a set of standards that continues to provide adequate safety, complies with all applicable laws and regulation, and conforms to top-level safety standards is based on adherence to the DOE/RL-96-0004 Standards Identification Process and successful completion of review and confirmation by the PSC.

TWRS-P General Manager/Designee - Approval Date